What is claimed is:

1. A bi-directional shift-register circuit for outputting data in different turns according to a low-voltage clock signal, a first directional signal and a second directional signal, comprising:

a first shift-register unit having a first-stage input terminal, a first-stage output terminal, and a first-stage clock input terminal for receiving the low-voltage clock signal;

a second shift-register unit having a second-stage input terminal, a second-stage output terminal, and a second-stage clock input terminal for receiving the low-voltage clock signal;

a third shift-register unit having a third-stage input terminal, a third-stage output terminal and a third-stage clock input terminal for receiving the low-voltage clock signal;

a first bi-directional control circuit having a first input terminal coupled to the first-stage output terminal, a second input terminal coupled to the third-stage output terminal, and a first control terminal; the first bi-directional control circuit outputs the signal of the first-stage output terminal to the second-stage input terminal when the first control terminal receives the first directional signal and outputs the signal of the third-stage output terminal to the second-stage input

terminal when the first control terminal receives the second directional signal;

a first level shifter coupled to the first-stage output terminal to amplify the signal of the first-stage output terminal;

a second level shifter coupled to the second -stage output terminal to amplify the signal of the second-stage output terminal; and

a third level shifter coupled to the third-stage output terminal to amplify the signal of the third-stage output terminal;

wherein the second shift-register unit outputs the signal of the second-stage output terminal to the third-stage input terminal when the second-stage input terminal receives the signal of the first-stage output terminal and the second shift-register unit outputs the signal of the second-stage output terminal to the first-stage input terminal when the second-stage input terminal receives the signal of the third-stage output terminal.

2. The bi-directional shift-register circuit as claimed in claim 1, wherein the data is sequentially output by the first shift-register unit, the second shift-register unit and the third shift-register unit when the first control terminal receives the first directional signal.

3. The bi-directional shift-register circuit as claimed in claim 2, wherein the data is sequentially

output by the third shift-register unit, the second shift-register unit and the first shift-register unit when the first control terminal receives the second directional signal.

4. The bi-directional shift-register circuit as claimed in claim 1, further comprising:

a second bi-directional control circuit having a first input terminal coupled to the second-stage output terminal, a second input terminal coupled to a first clock signal, and a second control terminal; wherein the second bi-directional control circuit outputs the signal of the second-stage output terminal to the third-stage input terminal when the second control terminal receives the first directional signal and outputs the first clock signal to the third-stage input terminal when the second control terminal receives the second directional signal;

a third bi-directional control circuit having a first input terminal coupled to a second clock signal, a second input terminal coupled to the second-stage output terminal, and a third control terminal; wherein the second bi-directional control circuit outputs the second clock signal to the first-stage input terminal when the third control terminal receives the first directional signal and outputs the signal of the second-stage output terminal to the

first-stage input terminal when the third control terminal receives the second directional signal.

5. The bi-directional shift-register circuit as claimed in claim 1, wherein the first bi-directional control circuit comprises:

a first logic device coupled to the first-stage output terminal and the third-stage output terminal;

a controlling device for outputting the signal of the first-stage output terminal or the signal of the third-stage output terminal according to the signal of the first control terminal; and

a second logic device, coupled to an output terminal of the first logic device and an output terminal of the controlling device, for outputting the signal of the first-stage output terminal to the second-stage input terminal when the first control terminal receives the first directional signal, and outputting the signal of the third-stage output terminal to the second-stage input terminal when the first control terminal receives the second directional signal.

6. The bi-directional shift-register as claimed in claim 5, wherein the first and second logic devices are NOR logic gate.

7. A bi-directional shift-register circuit for outputting data in different turns according to a low-voltage clock signal, a first directional signal and a second directional signal, comprising:

a first shift-register unit having a first-stage first input terminal, a first-stage second input terminal, a first-stage output terminal, and a first-stage clock input terminal for receiving the low-voltage clock signal;

a second shift-register unit having a second-stage first input terminal, a second-stage second input terminal, a second-stage output terminal, and a second-stage clock input terminal for receiving the low-voltage clock signal;

a third shift-register unit having a third-stage first input terminal, a third-stage second input terminal, a third-stage output terminal and a third-stage clock input terminal for receiving the low-voltage clock signal;

a first bi-directional control circuit having a first input terminal coupled to the first-stage output terminal, a second input terminal coupled to the third-stage output terminal, and a first control terminal; wherein the first bi-directional control circuit outputs the signal of the first-stage output terminal to the second-stage first input terminal, and outputs the signal of the third-stage output terminal to the second-stage second input terminal when

the first control terminal receives the first directional signal and outputs the signal of the third-stage output terminal to the second-stage first input terminal and outputs the signal of the first-stage output terminal to the second-stage second input terminal when the first control terminal receives the second directional signal;

a first level shifter coupled to the first-stage output terminal to amplify the signal of the first-stage output terminal;

a second level shifter coupled to the second -stage output terminal to amplify the signal of the second-stage output terminal; and

a third level shifter coupled to the third-stage output terminal to amplify the signal of the third-stage output terminal;

wherein the third-stage first input terminal receives the signal of the second-stage output terminal and the third-stage second input terminal receives a first clock signal when the second-stage first input terminal receives the signal of the first-stage output terminal and the second-stage second input terminal receives the signal of the third-stage output terminal and the first-stage first input terminal receives the signal of the second-stage output terminal, and the first-stage second input terminal receives a second clock signal when the second-stage first input terminal receives

the signal of the third-stage output terminal and the second-stage second input terminal receives the signal of the first-stage output terminal.

8. The bi-directional shift-register circuit as claimed in Claim 7, wherein the data is sequentially output by the first shift-register unit, the second shift-register unit and the third shift-register unit when the first control terminal receives the first directional signal.

9. The bi-directional shift-register circuit as claimed in claim 8, wherein the data is sequentially output by the third shift-register unit, the second shift-register unit and the first shift-register unit when the first control terminal receives the second directional signal.

10. The bi-directional shift-register circuit as claimed in claim 9, further comprising:

a second bi-directional control circuit having a first input terminal coupled to the second-stage output terminal, a second input terminal coupled to the first clock signal, and a second control terminal; wherein the second bi-directional control circuit outputs the signal of the second-stage output terminal to the third-stage first input terminal and outputs the first clock signal to the third-stage second input terminal when the second control

terminal receives the first directional signal and outputs the first clock signal to the third-stage first input terminal and outputs the signal of the second-stage output terminal to the third-stage second input terminal when the second control terminal receives the second directional signal;

a third bi-directional control circuit having a first input terminal coupled to the second clock signal, a second input terminal coupled to the second-stage output terminal, and a third control terminal; wherein the third bi-directional control circuit outputs the second clock signal to the first-stage first input terminal and outputs the signal of the second-stage output terminal to the first-stage second input terminal when the third control terminal receives the first directional signal and outputs the signal the second-stage output terminal to the first-stage first input terminal and outputs the second clock signal to the first-stage second input terminal when the third control terminal receives the second directional signal.

11. The bi-directional shift-register circuit as claimed in claim 10, wherein the first bi-directional control circuit comprises:

a first switch, having an input terminal coupled to the first-stage output terminal, a first output

terminal coupled to the second-stage first input terminal and a second output terminal coupled to the second-stage second input terminal, for outputting the signal of the first-stage output terminal to the second-stage first input terminal when the first control terminal receives the first directional signal; and

a second switch, having an input terminal coupled to the third-stage output terminal, a first output terminal coupled to the second-stage second input terminal and a second output terminal coupled to the second-stage first input terminal, for outputting the signal of the third-stage output terminal to the second-stage second input terminal when the first control terminal receives the second directional signal.

12. The bi-directional shift-register circuit as claimed in claim 11, wherein the first switch outputs the signal of the first-stage output terminal to the second-stage second input terminal and the second switch outputs the signal of the third-stage output terminal to the second-stage first input terminal when the first control terminal receives the second directional signal.